How technology is likely to eliminate 60% of today's jobs

By Martin Pienaar

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Disruption, disruptors and technology are reinventing how we live our lives at home and work and exponential technologies are likely to eliminate 60% of the jobs we know today. If employers and employees do not get to grips with what this means for companies, they are not guaranteed of work in the future.

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Next industrial revolution is here

Not for the first time are we experiencing a revolution that is threatening jobs and disrupting industries; think of the agricultural revolution, industrial revolution and even more recently in the technology age, how word processors obliterated the typing pool.

The next industrial revolution is here. People connected in real time by mobile phones and billions of connected sensors, are resulting in a revolution driving efficiency and productivity. Devices are getting cheaper, more powerful and more efficient which is pushing the internet into the industrial world. In this world, capital expenditure is giving way to monthly operating costs, where for example, the low cost of cloud computing allows for the growth of greenfields organisations, which means more entrepreneurship and resultant innovation.

In this tech-era, companies should measure themselves on their responsiveness, not just the traditional assets and regulatory frameworks that have secured their success in the past. Competitors of the future will likely not be the same as the past and they will be faster, cheaper and do it better than you can. There is not an industry unaffected.

Employees need to reinvent themselves too

It is highly unlikely that businesses of the future will insource all functions. The business model is likely to be a mix of own and outsourced pieces and 'employees' will need skills in managing outsourced relationships.

'On-demand' skills must be mixed with full time teams in order to allow companies to rapidly scale up and down based on innovation cycles, but also to ensure they are constantly resourced with current and best-of-breed skills. In order to stay competitive, companies will need to ensure that their permanent employees stay current too.

Over 53 million Americans are already participating in the part time 'gig' or 'on-demand' economy. We expect this to grow over time.

Websites such as Freelancer and Upwork (which is not yet active in South Africa) have allowed employers to find skills more easily. These trends will continue. In fact over the decade ending in 2015, the only net growth in staffing in the US market was in the 'gig' economy, primarily Uber drivers.

Reskilling for emerging technologies such as artificial intelligence/machine learning, big data, virtual and augmented reality, blockchain, robotics and the internet of things will soon be essential. Many of these technologies are coming out of a deceptive phase and becoming disruptive in the unlikeliest of industries. Robots are advising financial services clients, virtual reality is being used to solve pain issues in the medical realm and driverless cars have completed many millions of kilometres in California and Texas.

21st century skills not about reading, writing, arithmetic

Companies and individuals who want to stay relevant will need to be up to date and competent in many of these technologies. If we carry on providing 'broadcast' education rather than training for the attributes required in the 21st century, we are doing our youth and ourselves a disservice, as they will be incompetent to cope in the workplace.

The qualities of curiosity, initiative, persistence, adaptability, leadership, social and cultural awareness are the basic foundational requirements for success in the new world of work. In addition, cross-team collaboration, creative thinking and prototyping are going to be the key attributes in a high-speed world.

Moreover, when you think that people are also starting to live longer – the current mean lifespan of 67 could well start to reach 100 over the next two decades – workers may be forced to work for longer and have to stay up to date with technology changes too.

The good news is that significant opportunities exist to grow skills outside of schools and universities, with massive online open courses (MOOCs) being offered by organisations like MIT, Coursera and iTunesU.

Proof of change

Just in case you are still not convinced that the disruption trend is here to stay and will have a significant impact on the world of work, consider the following.

Business messaging service Slack is working on bots that will replace managers' roles to get updates, follow up on tasks and send information to others. This type of technology will start to erode the roles of middle managers. Expect big improvements in productivity.

Airbnb has bought a blockchain company. The reason is to build a digital reputation system, which makes ratings immutable and could be used on the site to access premium properties, or elsewhere as a form of digital ID (not unlike a credit rating). It is early days yet, but one gets a sense of how this technology will be used in future.

Many new industries will use people initially, but automate tasks as technology matures. An example is Uber and Lyft investing in self driving cars, Airbnb looking to unlock doors to rented homes using a mobile app (as against a person playing the key giver role), and online concierge services using artificial intelligence to replace humans.

We are living in very exciting times, but they are scary times for those who are not investing in their skills. Short term shedding of jobs is inevitable so standing still it just not an option when it comes to upskilling. However, there are many new opportunities being created also. Think about how Airbnb and Uber have absorbed excess capacity; imagine when excess human capacity can be economically harnessed, it will create exciting new markets. I hope you will be ready.

ABOUT THE AUTHOR

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